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IN THE ABSTRACT:

Please replace the Abstract of the Disclosure originally filed with the above-identified patent application with the following new Abstract of the Disclosure:

ABSTRACT OF THE DISCLOSURE

A mechanical quantity sensor includes a current-to-voltage converter/signal adder circuit that converts electric current signals flowing through two piezoelectric vibrators into voltage signals. The piezoelectric vibrators receive stresses generated by a mechanical quantity, such as acceleration, in opposite directions. A voltage amplifier/amplitude limiter circuit amplifies an added signal obtained from the two voltage signals and limits its amplitude. A phase-difference-to-voltage converter circuit detects a difference in the phases of the added signal and a feedback voltage signal applied to an acceleration detection element. A phase shifter circuit controls the phase of the feedback voltage signal so that the phase is a predetermined phase. A filter circuit minimizes frequency components higher than an oscillation frequency in an unwanted frequency band. By increasing the resistance of resistors so as to increase the damping ratio, temperature stability is increased. Accordingly, abnormal oscillation is prevented by the filter circuit, and fluctuation in the characteristics is minimized by the phase control circuit.